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ECE Teachers' Evolving Pedagogical Documentation in MAFApp: ICT Integration for Collective Online Thinking in Early Childhood Education

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Abstract: An extensive and controversial research debate discusses pedagogical documentation (PD) within early childhood education (ECE) as integral to ECE teachers' professional development. The literature converges in acknowledging that ICT integration in PD can be fundamental for children's and teachers' collaborative learning by making their processes visible and open to reflection. Controversial issues about PD emerge around ICT integration and the use of multimedia applications and platforms, displacing the physical experience involved in this pedagogical practice. Authors argue that online platforms make PD become a passive device to demonstrate accountability and performance. Furthermore, ICT integration would make educators inform children and families of pedagogical processes, positioning them more as consumers instead of involving them in collective thinking and pedagogical decision-making. This article analyses how pedagogical documentation mediated by a multimedia application (MAFApp) allows for the positive strengthening of an ECE pedagogical online community that thinks collectively about learning environments. In doing so, the paper shows how ICT integration supports ECE teachers' collective online thinking, enabling them to move from the controversial version of online PD, where they only act as informers of children's learning and assume a voyeuristic perspective, towards a collective online thinking that builds professional development and supports pedagogical decision-making about learning environments. This article answers How ECE teachers' pedagogical documentation evolves with ICT integration using the MAFApp multimedia application in a national ECE online community. From a posthumanist stance, this paper draws on an 18-month collaborative ethnographic immersion in Chile's unique public ECE online PD community. It develops a unique case study of an online ECE pedagogical community mediated by a multimedia application called MAFApp. This ECE online community includes 32 Chilean public kindergartens, 45 ECE teachers, and 72 assistants, who produced 534 pedagogical documentation. Fieldwork included 35 in-depth interviews, 13 discussion groups, and the constant comparison method for the PD coding. Findings show ICT integration in PD builds collective online thinking that evolves through four moments of growing complexity: 1) teachernalism of built environments, 2) onlookerism of children's anecdotes in learning environments; 3) storytelling of children's place-making, and 4) empowering pedagogies for co-creating learning environments. ICT integration through the MAFApp multimedia application enabled ECE teachers to build collective online thinking, making pedagogies of place visible and engaging children in co-constructing learning environments. This online PD is a continuous professional learning space for ECE teachers, empowering pedagogies of place. In conclusion, ICT integration into PD progressively empowers pedagogies of place in Chilean public ECE. Strengthening collective online thinking using the MAFApp multimedia application sharply contrasts with some recent PD research findings. ICT integration to PD enabled strong collective online thinking. Doing so makes PD operate as a place of professional development, pedagogical reflective encounters, and experimentation while inhabiting their own learning environments with children.

Keywords: early childhood education, ICT integration, multimedia application, online collective thinking, pedagogical documentation, professional development

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